

REMARKS

This is in response to the Non-Final Office Action mailed on March 4, 2011, in which claims 1, 3-6, 8-11, 13-22 and 24-26 were rejected. With this Amendment, claims 1, 8, 15 and 19 are amended, and claims 4, 13 and 22 are canceled. Claims 2, 7, 12 and 23 were previously canceled. Claims 1, 3, 5-6, 8-11, 14-21, and 24-26 remain pending in the present application.

Claim Amendments

Without acquiescing to the rejections of the claims, independent claims 1, 8, 15 and 19 are amended herein. The amendments provide that the recess in the piston has a “helical shape.” The claim also recites that a first portion of the fixation helix is mechanically supported by and coupled with the piston, and successive turns of the helix are partially recessed in the helical recess.

The amendments to the claims are supported by the specification as originally filed. For example, support can be found at paragraphs [0023]-[0024].

Section 102 Rejections

The Office Action rejected claims 1, 8-10, 19 and 24-26 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,667,686 (“*Peers-Travarton*”). Applicant traverses the rejection.

Without acquiescing to the rejection, the Applicant amends independent claims 1, 8 and 19. In the amendment of claim 1, the limitations of claim 4 are added claim 1. Thus, the 102(b) rejection of claim 1 based on *Peers-Travarton* is rendered moot because claim 4 was not included in the rejection. The amendments to independent claims 8 and 19 regarding the recess in the piston having a “helical shape,” overcome the rejections of the claims, as *Peers-Travarton* does not teach or suggest the amended claims.

Thus, *Peers-Travarton* does not disclose all of the features of amended, independent claims 1, 8 and 19, nor of the dependent claims. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the subject rejection of claims 1, 8-10, 19 and 24-26 under 35 U.S.C. § 102.

The Office Action rejected claims 1, 8-10, 14-17, 19 and 24-26 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,531,780 ("*Vachon*"). Applicant traverses the rejection.

Without acquiescing to the rejection, the Applicant amends independent claims 1, 8 and 19. In the amendment of claim 1, the limitations of claim 4 are added to claim 1. Thus, the 102(b) rejection of claim 1 based on *Vachon* is rendered moot because claim 4 was not included in the rejection. The amendments to independent claims 8 and 19 regarding the recess in the piston having a "helical shape," overcome the rejections of the claims, as *Vachon* does not teach or suggest the amended claims.

Thus, *Vachon* does not disclose all of the features of amended, independent claims 1, 8 and 19, nor of the dependent claims. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the subject rejection of claims 1, 8-10, 14-17, 19 and 24-26 under 35 U.S.C. § 102.

Section 103 Rejections

The Office Action rejected claims 3-6, 11, 13 and 20-22 under 35 U.S.C. § 103(a) as being unpatentable over *Peers-Travarton* in view of U.S. Patent 4,282,885 ("*Bisping*"). Applicant traverses the rejection.

As discussed above with regard to the 102(b) rejection based on *Peers Travarton*, *Peers-Travarton* does not disclose or suggest the amended, independent claims, and the dependent claims add even further distinguishing features from *Peers-Travarton*. In addition, *Bisping* does not remedy the shortcomings of *Peers-Travarton*. In *Bisping*, the core 23 includes a helical groove 26 through which the helix 22 is threaded (col. 6, lines 19-31; Fig. 6). The helix 22 is not coupled to the core 23 in the groove 26, but instead is threaded, or moves, through the groove 26. The helix, in the claims, is mechanically coupled to the piston within the helical shape recess. Therefore, the cited references together do not disclose or suggest all features of the rejected claims. Accordingly, Applicant respectfully requests withdrawal of the subject 103(a) rejection.

The Office Action rejected claims 3-6, 11, 13, 18 and 20-22 under 35 U.S.C. § 103(a) as being unpatentable over *Vachon* in view of *Bisping*. Applicant traverses the rejection.

As discussed above with regard to the 102(b) rejection based on *Vachon*, *Vachon* does not disclose or suggest the amended, independent claims, and the dependent claims add even

further distinguishing features from *Vachon*. In addition, *Bisping*, as discussed above, does not remedy the shortcomings of *Vachon*. Therefore, the cited references together do not disclose or suggest all features of the rejected claims. Accordingly, Applicant respectfully requests withdrawal of the subject 103(a) rejection.

The Office Action rejected claims 14-16 under 35 U.S.C. § 103(a) as being unpatentable over *Peers-Travarton*. Applicant traverses the rejection.

As discussed above with regard to the 102(b) rejection based on *Peers Travarton*, *Peers-Travarton* does not disclose or suggest the amended, independent claims, and the dependent claims add even further distinguishing features from *Peers-Travarton*. The same argument applies to amended, independent claim 15 as well. Accordingly, Applicant respectfully requests withdrawal of the subject 103(a) rejection of claims 14-16 based on *Peers-Travarton*.

The Office Action rejected claims 17 and 18 under 35 U.S.C. § 103(a) as being unpatentable over *Peers-Travarton* in view of *Bisping*. Applicant traverses the rejection.

As discussed above with regard to the 102(b) rejection based on *Peers Travarton*, *Peers-Travarton* does not disclose or suggest the amended, independent claims 1, 8 and 19. The same argument applies to amended, independent claim 15, and claims dependent thereon. Again, *Bisping* does not remedy the shortcomings of *Peers-Travarton*. Therefore, the cited references together do not disclose or suggest all features of the rejected claims. Accordingly, Applicant respectfully requests withdrawal of the subject 103(a) rejection.

The Office Action rejected claims 9 and 10 under 35 U.S.C. § 103(a) as being unpatentable over the modified *Vachon* as discussed above. Applicant traverses the rejection.

As discussed above with regard to the 102(b) rejection based on *Vachon*, *Vachon* does not disclose or suggest the amended, independent claims, and the dependent claims add even further distinguishing features from *Vachon*. Accordingly, Applicant respectfully requests withdrawal of the subject 103(a) rejection of claims 9 and 10 based on *Vachon*.

CONCLUSION

For the reasons explained above, all pending claims are now in condition for allowance. Accordingly, the Applicant respectfully requests that the Office issue a Notice of Allowance.

Any amendments to the claims are made to expedite prosecution of this application, without acquiescing to the Office's rejections or characterizations of the claims or references in the Office Action. Even if not expressly discussed above, the Applicant respectfully traverses each of the rejections, assertions, and characterizations regarding the disclosure and teachings of the cited references, including the prior art status and the propriety of proposed combinations of cited references.

The Applicant has made a good faith effort to respond to all rejections set forth in the Office Action and to place the pending claims in condition for immediate allowance. If it would be helpful, the Examiner is invited to contact the undersigned at the number listed below to facilitate prosecution of this application.

Respectfully submitted,

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